

Demonstration Lesson – Decimal Fractions (BBL Approach)

Lesson Title: *Discover the World of Decimal Fractions!*

Type of Lesson: consolidation of knowledge

BBL Tools Used: active and collaborative learning, multisensory stimulation, movement and play, real-life connection, emotional engagement

Teacher: Nicoleta Cristina Crețu

Class: 5th Grade,

Duration: 50 minutes

Main Objective: To understand what decimal fractions are, how to write them, how to compare them, and how to add or subtract them.

Lesson Stages

1. Positive Climate & Emotional Activation (10 min)

Opening Activity: **The Tale of King Decimus (Anexa 1)**

- Creating a relaxed atmosphere that encourages active student participation
- Solving challenges related to the story

2. Multisensory Input (10 min) (Anexa 2)

Students receive colored cards with decimal fractions and their equivalent common fractions.

Movement activity: Students with common fractions place their cards on their foreheads, and they must be found by the students holding the matching decimal fractions. The first pairs to match correctly receive a smiley-face badge.

3. Active Learning Exercise (15 min)

Students complete a worksheet with exercises related to decimal fractions. (**Anexa 3**)

4. Real-Life Connection & Generalization (7 min)

Students are given a store offer and must create a shopping list within a set budget. They build their own list and calculate how much money they have left.

5. Challenge and Game (5 min)

Solving challenges using the game: <https://wordwall.net/ro/resource/91614441>

6. Feedback and Reflection (3 min)

Traffic light technique: green/yellow/red cards.

Quick journal:

- Green = a new idea
- Orange = a question
- Pink = an emotion

Anexa 1



Emperor Decimus

Once upon a time, there was a kingdom called Arithmetikos.

Every person and every family in this kingdom had a code of honor written on their house, made up of digits separated by a comma. The digits before the comma represented the number of generations of a certain profession, and those after the comma showed which family they belonged to.

A great misfortune struck the land, and all the codes disappeared or were left incomplete. Emperor Decimus, one of the wisest in the realm, decided to help his people recover their lost codes. Each day, he was faced with many problems to solve.

One subject told him he remembered that his family had several codes, all less than 3. The digit before the comma was a prime number, and the two digits after the comma added up to the cube of the number before the comma.

Another subject complained that everyone in his family had codes made up of six digits—two before the comma and four after. The digits after the comma were the squares of those before, and he remembered that all codes began with the digit 3.

A third subject came crying that only the first and the last digit of his family's code were preserved. The digits was 8, and the two digits before the comma—after the 8—added up to the number between the comma and the last digit.

Thus, each day, the emperor had many problems to solve.

I now propose that we solve these three riddles together to ease the burden of Emperor Decimus.

Anexa 2

Instructions:

Go to the current Profi offer at this link: <https://www.profi.ro/revista/revista-profi-super>

You have a budget of 30 lei.

Make a shopping list for a delicious breakfast, without exceeding the budget.

At the end, calculate the total and how much money you have left.

No.	Chosen Product	Price
1		
2		

3		
4		
5		
6		
7		
	Total	
	Change received	

Anexa 3

Fișă de lucru

1. Găsiți perechea fiecărei fracții zecimale obținută prin transformarea în fracția ordinară

0,3 $\frac{1}{2}$

0,5 $\frac{11}{100}$

0,423 $\frac{3}{10}$

1,4 $\frac{7}{2}$

0,11 $\frac{9}{500}$

0,018 $\frac{423}{1000}$

2. Comparați numerele următoare:

- a) $2,7 \dots\dots\dots 2,37$ b) $32,5 \dots\dots\dots 3,25$
c) $0,009 \dots\dots\dots 0,09$ d) $1,73 \dots\dots\dots 2$
e) $3,45 \dots\dots\dots 5$ f) $7,8 \dots\dots\dots 8,7$

3. Calculați și aproximați prin lipsă rezultatele cu o eroare mai mică de o sutime:

- a)** $2,3+3,8=$ **b)** $1,35+ 11,257=$ **c)** $3,87+ 2+ 4,895=$ **d)** $9,78- 5,34=$ **e)** $0,1+5,8- 3,79$

4) Un biciclist are de parcurs 3,5 km. În primele 10 de minute parcurge 1,72 km iar în următoarele 5 minute parcurge 0,8km. Aflați cât mai are de parcurs.

5)* Aflați cifrele a și b, știind că : $\overline{a, b} + \overline{b, a} = 11$

6) Punctele A,B,C sunt coliniare AB=3,5cm iar BC=7,3 cm . Aflați AC